

## CLAIMS

1. An apparatus for linearizing the output of a communication device with a transmit path including a plurality of components and a receive path both coupled to a communication medium, and the apparatus comprising;
- 5 a training module for transmitting on the transmission path selected signals which generate a corresponding monitor signal on the receive path;
- a controller for varying at least one control parameter of at least a selected one of the plurality of components during the transmission of the selected signals by said training module; and
- 10 logic for determining which among the variations of the control parameter correlates with an optimal level of the corresponding monitor signal on the receive path.
2. A method for linearizing the output of a communication device with a
- 15 transmit path including a plurality of components and a receive path both coupled to a communication medium, and the apparatus comprising;
- transmitting on the transmission path selected signals which generate a corresponding monitor signal on the receive path;
- varying at least one control parameter of at least a selected one of the plurality
- 20 of components during said act of transmitting; and
- determining which among the variations of the control parameter correlates with an optimal level of the corresponding monitor signal on the receive path.